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FEED STUFF ANALYSES

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ADDRESS

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COLLEGE PARK, MD.

ANALYSES OF

Commercial Feeding Stuffs Sold in Maryland

BY THE CHEMICAL DEPARTMENT OF

The Maryland Agricultural College

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This bulletin contains the results of analyses of feeding stuffs made in this laboratory from May to November, 1911, inclusive.

Explanation of terms used and comparative analyses of well-known feeding stuffs have been frequently given in former bulletins.

The law provides that feeding stuffs, in addition to the guaranteed analysis, carry a statement of the materials of which they are composed. When the feed is a simple product or by-product the name alone is sufficient, but all compounded feeds should carry a statement of the ingredients contained therein. All this is not as simple as it at first appears, as the same name is often used for quite different products.

The Association of Feed Control Officials has adopted the following definitions:

Meal is the clean, sound, ground products of the entire grains, cereal or seed which it purports to represent; provided, that the following meals, qualified by their descriptive names, are to be known as, viz: **Corn germ meal** is a product in the manufacture of starch, glucose and other corn products and is the germ layer from which a part of the corn oil has been extracted. **Linseed meal** is the ground residue after extraction of part of the oil from the flaxseed.

Grits are the hard, flinty portions of Indian corn without hulls and germ.

Hominy meal, hominy feed or **hominy chop** is a mixture of the bran coating, the germ and a part of the starchy portion of the corn kernel.

Corn feed meal is the sifting obtained in the manufacture of cracked corn and table meal made from the whole grain.

Corn bran is the outer coating of the corn kernel.

Wheat bran is the coarse coatings of the wheat berry.

Shorts or standard middlings are the fine particles of the outer and inner bran separated from bran and white middlings.

Shipstuff or **wheat mixed feed** is a mixture of the products other than the flour from the milling of the wheat berry.

Red dog is a low grade wheat flour containing the finer particles of bran.

Oat groats are the kernels of the oat berry with the hulls removed.

Oat shorts are the covering of the oat grain lying immediately inside the hull, being a fuzzy material carrying with it considerable portions of the fine floury part of the groat obtained in the milling of rolled oats.

Oat middlings are the flour portion of the oat groat obtained in milling of rolled oats.

Oat hulls are the outer coverings of the oat grain.

Rice hulls are the outer coverings of the rice grain.

Rice bran is the cuticle beneath the hull.

Rice polish is the finely powdered material obtained by polishing the kernel.

Flax plant by-product is that portion of the flax plant remaining after the separation of the seed, the baste fiber and the portion of the shives, and consists of flax shives, flax pods, broken and immature flax seeds and the corticle tissue of the stem.

Buckwheat shorts or **buckwheat middlings** are that portion of the buckwheat grain immediately inside of the hull after separating from the flour.

Blood meal is ground dried blood.

Meat scrap and **meat meal** are the ground residues from animal tissue exclusive of hoof and bone. If they contain any considerable amount of bone, they must be designated meat and bone scrap, or meat and bone meal. If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

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Analysis of Feeding Stuffs.

No.	Name of Manufacturer or Agent.	Name of Feeding Stuffs.	Place of Sampling.	Protein.		Fat or Ether Extract.		Crude Fibre.	
				FOUND.	Guaranteed.	FOUND.	Guaranteed.	FOUND.	Guaranteed.
20208	Amer. Agr'l. Chemical Co., New York, N. Y.	Beef Scrap for Poultry..	Ellicott City...	66.08	.....	13.24	.....	.95	.....
20259	American Maize Products Co., New York, N. Y.	Cream of Corn Gluten Feed.	Baltimore.....	26.41	23.00	1.45	2.50	6.49	8.50
20266	American Milling Co., Chicago, Ill.	Alfalfa Sucrene Horse and Mule Feed.	Annapolis	12.20	10.00	2.79	3.50	12.98	15.00
20212	" " " "	Sucrene Dairy Feed....	.....	16.15	16.50	5.65	3.50	12.21	12.00
20242	Anheuser-Busch Brewing Co. St. Louis, Mo.	Steam Dried Brewers Grain.	Baltimore	20.97	24.00	6.52	7.50	15.32	12.00
20203	M. F. Baringer, Philadelphia, Pa.	Hominy Feed.....	Linwood	10.79	9.00	9.83	6.00	2.39	10.00
20270	Baugh & Sons Co., Baltimore, Md.	Meat Meal for Poultry..	Baltimore	53.90	50.00	19.74	14.00	1.34	1.00
20209	L. E. Bartell & Son, Balto., Md.	Cotton Seed Meal.....	Baltimore	40.63	.....	9.81	.....	7.15	.....
20250	Blatchford Calf Meal Factory, Waukegan, Ill.	Calf Meal.....	Baltimore	23.87	25.00	5.62	5.00	5.25	5.00
20273	J. Bolgiano & Son, Baltimore, Md.	Poultry Mash.....	Baltimore	17.90	.....	4.78	.....	5.09	.....
20272	" " " "	Square Deal Beef Scrap.	Baltimore	36.15	40.00	16.51	15.00	.68	.....
20264	" " " "	Square Deal Meat Scraps	Baltimore	53.49	50.00	14.58	10.00	.84	1.00
20214	" " " "	Square Deal Poultry Food.	Baltimore. ...	10.18	11.50	3.47	3.87	3.09	2.70
20243	F. W. Brode & Co., Memphis, Tenn.	Owl Brand H. G. Cotton Seed Meal.	Baltimore	41.02	41.00	8.32	6.00	6.77	10.00
20251	R. B. Brown Oil Co., St. Louis, Mo.	Choice Cotton Seed Meal	Laurel	41.33	41.00	8.70	9.00	7.74	.....
20215	J J. Buffington & Co., Balto., Md.	Buff Brand Scratch Feed	Baltimore	10.88	10.00	3.07	2.50	2.85	5.00
20274	W. J. Byrnes & Co., Chicago, Ill.	Royal Poultry Feed.....	Mt. Rainier....	10.44	10.00	3.92	3.00	2.52	5.00
20219	Clinton Sugar Refining Co., Clinton, Iowa.	Gluten Feed.....	Baltimore.	25.10	.....	3.88	.....	7.26	.....
20202	Corn Product[illegible] Refining Co., New York, N. [illegible]	Diamond Hog Meal....	Hampstead	20.62	18.00	10 96	8.00	10.09	. ....
[illegible]	Corno Mills C[illegible], Louis, Mo.	Nutro [illegible] Feed.....	Baltim[illegible]	10.27	10.00	3.28	3.50	2.04	.00
20232	Cyphers Incubator Co, Buffalo, N. Y.	Developing Food.....	Baltimore	10.09	10.30	3.09	4.00	1.69	.....
20204	Dewey Bros. Co. Blanchester								

20219	Clinton Sugar Refining Co., Clinton, Iowa.	Gluten Feed.....	Baltimore.....	25.10	.....	3.88	.....	7.26	.....
20202	Corn Product Refining Co., New York, N.	Diamond Hog Meal....	Hampstead....	20.62	18.00	10.96	8.00	10.09	....
20231	Corno Mills Co., Louis, Mo.	Nutro [illegible] Feed.....	Baltimore....	10.27	10.00	3.28	3.50	2.04	.00
20232	Cyphers Incubator Co, Buffalo, N. Y.	Developing Food.....	Baltimore.....	10.09	10.30	3.09	4.00	1.69	.....
20204	Dewey Bros. Co, Blanchester, Ohio.	Corn Three D. Grains..	Highland.....	29.75	26.00	12.65	9.00	11.85	8.00
20201	Douglass & Co., Cedar Rapids, Iowa.	Cedar Rapids Gluten Feed	Baltimore.....	19.48	22.00	2.13	4.00	6.21	3.00
20275	Edwards & Loomis Co., Chicago, Ill.	Red Comb Poultry Feed	Mt. Rainier...	10.09	10.00	3.17	2.50	2.59	5.00
20234	J. F. Eby & Son, Lancaster, Pa.	Crystaloid Dairy Feed..	Lineboro.....	17.38	16.50	5.31	3.50	11.82	.....
20200	J. F. Eby & Son, Lancaster, Pa.	Laymore Hen Feed.....	Pocomoke City	10.18	8.00	1.45	3.00	3.00	.....
20267	Evans Milling Co., Indianapolis, Ind.	Hominy Feed.....	Baltimore.....	10.18	10.00	8.41	7.50	5.04	7.00
20221	Faultless Poultry Feed Co., Baltimore, Md.	Poultry Feed.....	Baltimore.....	10.09	10.00	3.65	3.50	2.94	2.00
20244	J. M. Frisch & Co., Baltimore, Md.	Choice Cotton Seed Meal	Baltimore.....	37.56	41.00	7.36	7.00	12.67	.....
20252	" " " "	King, Corn & Oats Feed	Baltimore.....	8.03	8.00	3.02	4.00	9.60	.....
20237	" " " "	Prime Cotton Seed Meal	Baltimore....	37.56	38.50	7.05	6.00	9.35	.....
20253	" " " "	Pure Old Process Oil Meal	Baltimore.....	35.80	32.00	6.74	5.00	7.72	5.00
20276	J. J. George & Co., Baltimore, Md.	Diamond G. Poultry Feed	Baltimore.....	10.35	9.00	3.04	2.00	2.70	2.00
20218	" " " "	Farmer's Choice Dairy Feed.	Baltimore.....	16.50	18.00	5.14	4.00	11.95	.....
20222	" " " "	Monogram Poultry Feed	Baltimore.....	9.92	8.00	3.03	3.00	2.71	2.00
20277	" " " "	Poultry Mash.....	Baltimore.....	18.69	21.38	4.48	6.60	7.18	10.88
20278	Hadnut Co., Terra Haute, Ind.	Flaked Corn and Oats..	Baltimore.....	10.44	10.00	3.88	4.00	2.87	8.00
20239	H-O-Co., Buffalo, N. Y.	Poultry Feed.....	Silver Spring..	17.46	17.00	4.70	5.50	6.24	9.00
20240	Humphreys Godwin Co., Memphis, Tenn.	Dixie Brand Cotton Seed Meal.	Silver Spring..	38.26	38.62	8.74	6.00	9.21	8.00
20254	Keeton-Krueger Co., Atlanta, Ga.	Crown Brand Cotton Seed Meal.	Baltimore.....	36.59	38.62	6.78	6.00	9.95	12.00
20228	C. A. Krause Milling Co., Milwaukee, Wis.	Badger Dairy Feed.....	Cumberland...	16.15	16.00	2.69	2.00	12.75	15.00
20229	" " " "	Maize Oil Meal.....	Cumberland...	14.13	16.00	7.44	8.00	3.45	5.00
20238	Guy G. Major Co., Toledo, Ohio.	Old Process Oil Meal...	Baltimore.....	29.57	30.00	6.18	5.00	8.61	2.10
20211	D. B. Martin Co., Philadelphia, Pa.	Beef Meal for Poultry..	Ellicott City...	64.50	.....	12.24	.....	.90	.....

Analysis of Feeding Stuffs.

No.	Name of Manufacturer or Agent.	Name of Feeding Stuffs.	Place of Sampling.	Protein.		Fat or Ether Extract.		Crude Fibre.	
				FOUND.	Guaranteed.	FOUND.	Guaranteed.	FOUND.	Guaranteed.
20279	Milwaukee Grain & Feed Co., Milwaukee, Wis.	Crown Brewers Dried Grain.	Chestertown ..	29.48	25.00	5.40	5.00	13.36	.....
20241	" " " "	Electric Stock Feed.....	Hyattsville....	16.76	14.00	2.94	2.00	10.32	10.00
20255	F. E. Morse & Co., Little Rock, Ark.	Golden Brand Pure Cotton Seed Meal.	Baltimore....	44.63	41.00	10.23	9.00	4.03	.....
20268	Northern Linseed Oil Co., Minneapolis, Minn.	Ground Oil Cake.....	Annapolis.....	36.68	32.00	6.60	6.00	7.57	9.00
20217	North-West Mills Co.. Winona, Minn.	Sugarota Dairy Feed....	Rockville.....	15.62	16.00	4.62	3.00	13.55	12.00
20245	Omaha Alfalfa Milling Co , Omaha, Neb.	Perfection Horse Feed..	Baltimore	10.27	10.50	3.21	3.00	7.19	12.00
20223	Park & Pollard Co., Boston, Mass	Blue Ribbon Scraps.....	Baltimore	55.39	55.00	14.34	5.00	1.17	.....
20207	" " " "	Growing Feed....	Baltimore	14.04	14.00	.82	3.50	2.32	.....
20249	Quaker Oats, Co., Chicago, Ill.	Boss Feed..... ..	Adamstown ...	9.13	8.00	3.07	3.50	11.12	11.00
20269	" " " "	Schumacher Stock Feed.	Annapolis	10.62	10.00	3.58	3.25	9.38	10.00
20271	" " " "	Victor Feed	Salisbury.....	11.06	7.50	4.85	3.00	10.22	.....
20260	Ralston Purina Co., St. Louis, Mo.	Chicken Chowder.....	Baltimore	17.11	16.00	3.70	2.50	6.26	9.60
20256	" " " "	Protena Dairy Feed	Baltimore	20.53	20.00	4.71	3.50	14.31	14.00
20220	" " " "	Purina Mill Feed, Scratch Size.	Baltimore	10.00	11.00	3.31	3.60	2.00	4.00
20233	" " " "	Purina Feed.....	Baltimore	13.43	12.50	4.46	4.00	9.84	8.00
20246	Daniel Rider, Baltimore, Md..	Corn Oil Meal.....	Baltimore	20.53	.....	10.70	.....	7.41	.....
20206	St. Louis Cotton Oil Co , Nat'l. Stock Yards, Ill.	Choice Cotton Seed Meal	Baltimore	42.82	41.00	7.32	6.00	8.04	10.00
20225	W. G. Scarlett & Co., Balto., Md.	Ground Beef Scrap	Baltimore	54.60	50.00	15.29	10.00	.90	1.00
20213	" " " "	Oriole Brand H. G. Poultry Fe	Baltimore... .	11.03	11.00	4.04	2.70	3.81	4.00
20257	C. S. Schermerhorn & Son, Baltimore, Md.	Cotton Seed Meal.....	Laurel	42.03	.....	9.66	.....	6.76	
20258	" " " "								

	Stock Yards, Ill.										
20225	W. G. Scarlett & Co., Balto., Md.	Ground Beef Scrap	Baltimore	54.60	50.00	15.29	10.00	.90	1.00
20213	" " " "	Oriole Brand H. G. Poultry Fe	Baltimore	11.03	11.00	4.04	2.70	3.81	4.00
20257	C. S. Schermerhorn & Son, Baltimore, Md.	Cotton Seed Meal	Laurel	42.03	.....	9.66	.....	6.76	.....
20258	" " " "	Old Process Oil Meal	Baltimore	35.19	31.50	5.73	7.00	7.51	10.00
20205	Schooley Milling Co., Laurel, Md.	Scratch Feed	Laurel	10.18	.....	3.63	.....	2.43	.....
20216	W. A. Simpson & Co., Baltimore, Md.	Champion Brand Scratch Feed.	Baltimore	9.65	10.00	3.51	2.25	3.10	2.50
20261	Southern Cotton Oil Co., Charlotte, N. C.	Bonita Brand Cotton Seed Meal.	Baltimore	38.64	38.62	8.14	6.00	12.17	10.00
20226	Southern Fibre Co., Portsmouth, Va.	Cotton Seed Feed Meal.	Baltimore	19.83	22.00	4.16	4.00	21.50	22.00
20247	Swift & Co., Kearny, N. J.	Beef Scrap	Baltimore	54.69	50.00	12.57	10.00	2.28	.....
20230	Thompson & Co., Allegheny, Pa.	Oil Meal	Cumberland	28.08	32.00	7.03	8.50	8.74	6.00
20248	Toledo Grain & Milling Co., Toledo, Ohio.	Camps Flaked Corn and Oats.	Baltimore	9.92	10.00	3.96	4.00	3.35	8.00
20265	R. C. Wells & Co., Baltimore, Md.	O. C. Feed	Baltimore	10.71	.....	4.63	.....	5.05	.....
20262	Western Grain Products Co., Hammond, Ind.	Chicago Alfalfa Horse and Mule Feed.	Frederick Road	11.32	10.00	3.20	3.00	9.16	15.00
20235	" " " "	Hammond Dairy Feed	Woodbine	17.46	17.00	4.23	3.00	11.60	.....
20236	" " " "	Hammond Stock Feed	Maple Grove	9.48	10.00	3.40	4.00	8.76	.....
20227	T. W. Wood & Sons, Richmond, Va.	Hollybrook Scratching Food.	Baltimore	10.79	10.50	3.36	3.00	2.63	4.00
20263	R. A. Wooldridge Co., Baltimore, Md.	Beef Scrap	Baltimore	67.73	.....	13.81	.....	2.00	.....

Cracklings are the residue after partially extracting the fats and oils from the animal tissue. If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

Digester tankage is the residue from animal tissue, exclusive of hoof and horn, specially prepared for feeding purposes by tanking under live steam, drying under high heat, and suitable grinding. If it contains any considerable amount of bone, it must be designated digester meat and bone tankage.

Distiller's dried grains are the dried residue from cereals obtained in the manufacture of alcohol and distilled liquors. The product shall bear the designation indicating the cereal predominating.

Brewer's dried grains are the proper dried residue from cereals obtained in the manufacture of beer.

Malt sprouts are the sprouts of the barley grain. If the sprouts are derived from any other malted cereal, the source must be designated.

Alfalfa meal is the entire alfalfa hay ground, and does not contain an admixture of ground alfalfa straw or other foreign materials.

Chop is a ground or chop feed composed of one or more different cereals or by-products thereof. If it bears a name descriptive of the kind of cereals, it must be made exclusively of the entire grains of those cereals.

Screenings are the smaller imperfect grains, weed seeds and other foreign material having feeding value, separated in cleaning the grain.

The following terms are still under consideration by the association: "Oat clipping," "White wheat middlings" and "Cottonseed meal." The latter, however, is the ground residue after extracting a part of the oil (generally by pressure) from hulled cottonseed and varies some in composition of the seed and, especially, to more or less of the comparatively worthless hulls that are necessarily, or otherwise, allowed to remain. The highest grade should contain at least 41 per cent. of protein. Lower grades are recognized, but a product containing less than 36 per cent. of protein, it is generally conceded except by the makers, should be called "Cottonseed meal and hulls."

Feeders should pay more attention to the analysis, though the mixture feed with the highest amount of protein and fat is not necessarily the best.